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### CONTINUOUS GAS CONTROL TYPE EXCOMER LASER DEVICE

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**Abstract:**

**PURPOSE**

To enable a specific gas component contained in laser gas to be kept at a prescribed partial pressure without providing a concentration meter by a method wherein a low-temperature gas condensation section excluding its part on a most upstream side is made to condense specific gas previously fed from outside.

**CONSTITUTION**

Laser gas 2 introduced into a low-temperature gas re-generating device 5 are made to pass through gas condensing sections 9-1 and 9-2 installed in a vacuum heat insulating tank 7. The gas condensing section 9-1 is set to a cooling temperature of  $T(\text{sub } 1)$ , gaseous impurity 10 contained in laser gas is condensed on the condensing surface of the condensing section 9-1, and most of impurities 10 is removed. In succession, laser gas 2 where the impurities 10 are removed is introduced into the gas condensing section 9-2 which is set to a cooling temperature of  $T(\text{sub } 2)$  ( $\geq T(\text{sub } 1)$ ). Condensed halogen gas previously

condensed at a temperature of  $T(\text{sub } 2)$  is accumulated on the condensing surface of the condensing section 9-2, and halogen gas 2-1 is kept at a partial pressure required for laser oscillation.

JAPIO

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